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## Audio Visual Media in Breast Feeding Health Education Related to Knowledge and Attitude of Lactation Women

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### Abstract

The problem of breastfeeding is become main concern in the word. Some mothers didn't breastfeed exclusively because they was lack of knowledge regarding the benefit of breast milk for the baby and the method to breastfeed properly. Knowledge can be increased and give influence in attitude to change the behavior through health education. Health education based on the audio visual more effectively rather than using of an audio or visual. This study aims to compare the effectiveness of health education methods using a video and conventional method (leaflet and explanation). The study method is quasy experiment, pre and post test design. The number of 40 pregnant women was involved in this study. They were primigravida and in trimester three of pregnancy. The subject was divided to be control and intervention group randomly. Intervention group (20 women) was given health education using audio visual media. The control group was explained using a leaflet. Twenty questions regarding the benefit of breast milk and the methods of breastfeeding were used in pre and post test. Shapiro Wilk was used to analyze data distribution. The data was not normally distributed, then Mann-Whitney test was performed. The research revealed that there was a significant differences in the level of knowledge between intervention and control group ( $p=0.007$ ). There was also a significant difference in the attitude of mother toward breastfeeding in the both groups (0.001). In conclusion, health education using a audio visual media was more effectively in increasing the knowledge and attitude of breastfeeding mothers.

**Keywords:** Breastfeeding; breast milk; knowledge; audio visual.

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## **1. Introduction**

Breast milk is the best nutrition for baby because it has appropriate composition. Exclusive breastfeeding is recommended worldwide. Some problems arise in related with the low coverage of exclusive breastfeeding in some countries. Lack of knowledge about the benefit of breast milk and the method of breastfeed was faced by lactation women [1]. The limit of breast milk counseling services and low support of health services negatively influence breastfeeding practice [2]. Health education was done by health services regularly. The general method was using a leaflet as a media. This method was not effective in increasing of knowledge. Interactive media has a better result in increasing the knowledge of audience [3]. The audio visual media was developed by researcher involving explanation of the benefit of breast milk and the method of breastfeeding. The video researcher was recorded during giving an explanation then documented as a video. The video also contains of slides of explanation that can be read by the audiences. This research aims to find the effectiveness of health education practice using audio visual media by analyzing the level of knowledge and attitude of the subjects. This study was approved by the Ethic Committee for Health Research, Health Polytechnic of Semarang (No.028/KEPK/POLTEKKES-Smg/EC/2017)

## **2. Method**

This research was quasy experiment, pre post test design [4]. Population was trimester three of pregnant women on Tunjungan, Ngawen, Blora and Medang Community Health Services, Blora District, Central Java Province, Indonesia. Metode of sampling was total sampling. The number of 40 pregnant women was selected as a subject based on the inclusive criteria which are primigravida in trimester three of pregnancy. Subject was divided in group of intervention and control randomly. Pre test of knowledge (20 questions) was conducted toward both groups. The knowledge was categorized in less (0-59), average (60-75) and good (76-100). Data distribution was tested for the normality using Shapiro Wilk. Mann Whitney test was used because data was not normally distributed. Intervention group was given health education using audio visual media. Health education for control group was done conventionally (explanation and leaflet). Post test in similar question with pre test was conduct to identify the score of knowledge after intervention. Normality data of knowledge score was tested using Shapiro Wilk. Mann Whitney test was used because data was not normally distributed. Pre test and post test was also done for attitude to breastfeeding practice. There are 10 questions of questionnaire to identifying positive or negative attitude of mothers toward breastfeeding practice. The mothers had negative attitude when the score was less then mean ( $<65$ ). Positive attitude was stated when the mothers had score more than mean ( $>65$ ). Mann Whitney test was used in analyzing the attitude of control group and intervention group.

## **3. Result**

The characteristic of respondents was identified to describe possible factors influencing in receiving health education. Table 1 showed that respondents were dominated by women in health reproductive ages (20-35). The risk of reproductive age was  $< 20$  years and  $> 35$  years. The women over 20 years old are usually facing psychological problem, on the other hand women in over 35 years old tend to get complication in pregnancy, labor and postpartum. Women aged 20-35 years old is ready mature for pregnant physically and

psychologically, labor and nurturing the baby. Distribution of the women occupation was relative homogen which were private employee, farmer and housewife. There were 12 mothers who worked under schedule and may face difficulty in managing time for breastfeed her babies. Most of women in this research were dominated in elementary (37.5%) and secondary schools (55%). Education has strong relationship with the ability to understand some knowledge given. The number of 37.5% women in elementary school level of education may influence the ability in understanding and practicing the knowledge and skill.

**Table 1:** Characteristic of respondents

Variable		n	%
Age	< 20	7	17.5
	20-35	27	67.5
	>35	6	15
Occupation	Government officer	2	5
	Private employee	10	25
	Farmer	11	27.5
	Housewife	17	42.5
Education	Elementary school	15	37.5
	Secondary school	22	55
	Tertiary	3	7.5

Table 2 showed that breastfeeding knowledge increased in the intervention group (30%-65%) greater rather than in control group (15%-25%). Different method of a knowledge transferring may be influenced the result of score pre and post test. The women who had lack of knowledge also decreased more significant in the group of intervention (35%) compared to control group (10%).

**Table 2:** Age distribution of respondents

Knowledge	Control				Intervention			
	Pre		Post		Pre		Post	
	n	%	N	%	N	%	n	%
Less	10	50	8	40	9	45	2	10
Average	7	35	7	35	5	25	5	25
Good	3	15	5	25	6	30	13	65
	20	100	20	100	20	100	20	100

Table 3 revealed that intervention of health education using audio visual media was increasing the positive attitude of mother in breastfeeding practice based on pre and post test (45%-85%). The conventional method of health education practice did not increase the number of mother with positive attitude in breastfeeding (30%-30%)

**Table 3:** Distribution of attitude in breastfeeding practice

Attitude	Control				Intervention			
	Pre		Post		Pre		Post	
	N	%	n	%	N	%	n	%
Positive	6	30	6	30	9	45	17	85
Negative	14	70	14	70	11	55	3	15
	20	100	20	100	20	100	20	100

Man Whitney test showed that there was a significant differences in the knowledge of breastfeeding in post test between intervention and control group ( $p= 0.007$ ). Video may allow the respondent understand in two ways which are listening and watching. It is helpful for them to recognize the knowledge transferred. Mean of the attitude score was increase in the group of intervention, but decrease in the control group. It may relate with the increasing of knowledge level in the intervention group which influenced the attitude changes.

**Table 5:** Bivariate Analysis of knowledge

Group	Pre		Post	
	Mean	P value	Mean	P value
Intervention	21.50	0.568	24.82	0.007
Control	18.58		15.42	

Table 6 revealed that Mann-Whitney test result in the significant differences of post test in group of intervention and control toward attitude in breastfeeding practice ( $p=0.001$ ). In pre test of attitude, it can be seen from the both groups that there was not a significant differences in attitude of mothers toward breastfeeding practice ( $p=0.07$ ). The increasing of knowledge caused positive attitude in intervention group greater rather in control group.

**Table 6:** Bivariate analysis of attitude in breastfeeding practice

Group	Pre		Post	
	Mean	P value	Mean	P value
Interventio	22.00	0.07	24.82	0.001
Control	15.42		19.00	

It can be seen in the table 6 that there is no significant differences in attitude pre test of respondents in both group ( $p=0.07$ ). It means that attitude toward breastfeeding practice of respondent was relatively homogen.

## 4. Discussion

### 4.1. Characteristic of Respondent

Age of respondents was categorized based on reproductive health according WHO. The best age for

reproductive health is 20-35 years because in this age mother in both physically and psychologically health. Therefore the mothers are ready for pregnant, labor and nurturing the babies [5]. Years of 20-35 is an ideal age for pregnant, labor, post partum, and lactation because the reproductive organ supported for that [6]. This study also found that the majority respondents were housewife, private employee and farmer. Occupation is the main activities of mothers in seeking for income. The working environment may become the source of information for the mothers. The mother may be share a lot of knowledge with others [7]. Furthermore occupation may influence the mother's knowledge about breastfeeding. Occupation influences some mothers in breastfeed exclusively, because they may have a busy schedule. Many times the mothers have to leave the baby frequently, and then it reduces the breast milk production. Breast milk in sufficiency may cause the baby is not breastfeed exclusively. Other than working mother, housewife mothers have an enough time at home, therefore they have bigger opportunity to breastfeed their babies.[8] This study showed that most of respondents were in secondary school (55%). Knowledge has a significant relation with level of education. The higher the education levels the easier for people in receiving knowledge. Education may influence the attitude including a motivation. Low education may inhibit the development of attitude in health [8].

#### ***4.2. Analysis of breastfeeding knowledge***

From the pre test conducted, this study showed that there was a low level of knowledge toward the benefit of breast milk and breast feeding method. The main factor of lack of breastfeeding knowledge in mothers was in appropriate of method in giving health education. Electronic media such as television and video provides more clear information rather than printed media such as news paper or magazine [7]. Furthermore there was an increasing of knowledge level of respondent after treated with audio visual media of breastfeeding health education (35%). The increasing of knowledge level also happened in the group of control (treated with conventional health education) however the percentage was lower than in intervention group (10%).The education level of respondent may influence in understanding process. Respondents who were in secondary school level (55%) enhanced in increasing the knowledge [9].

#### ***4.3. Analysis of attitude toward breastfeeding practice***

This study showed that there were more respondents with negative attitude toward breastfeeding rather than respondents with positive attitude in booth groups (37.5% : 62.5%). The negative attitude of mothers will influence negatively in breastfeeding practice. Attitude was influenced by knowledge then it is important to increase the knowledge in enhancing the positive attitude. Positive attitude tend to motivate people to behave related with the knowledge. Learning process was needed in the positive attitude building, because there is a changing process during learning which are cognitive, affective and psychomotor [10]. Behavior based on knowledge would be longer practicing rather than behavior that is not based on knowledge. Breastfeeding practice is psychomotor activities that practicing is needed as skill. Video allows mothers to watch in detail and can practicing better what they were watching. Providing health education by running a video enhanced the mothers' knowledge then develops the positive attitude toward breastfeeding practice. Knowledge of exclusive breastfeeding changes the attitude of mother toward breastfeeding practice. Therefore mothers behave as their knowledge in practicing exclusive breastfeeding. The better the knowledge of benefit breast milk and

breastfeeding practice, the higher of possibility of mothers giving breast milk exclusively to their babies [11]. The increasing of knowledge and attitude's mothers after treated by an audio visual media of health education may because there was a transferring message, that stimulate an awareness, knowing, understanding and doing [12].

## **5. Conclusion**

This study found that there is a significant difference in knowledge ( $p=0.007$ ) and attitude ( $p=0.001$ ) of breastfeeding mothers who received health education using audiovisual media compared to conventional media (leaflet). There was also the increasing mean of knowledge in pre test and post test intervention group treated with audio visual media (21.50 to 24.82). Therefore, audio visual media in health education is effective in increasing knowledge of breast milk and breastfeeding. Then the increasing of knowledge enhances the positive attitude toward breastfeeding practice. It can be concluded that it is recommended to increase the mothers knowledge about breast milk and breastfeeding management through health education using audio visual media (video).

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